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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/987,306

11/14/2001

Alex Hornig

HORN3076/EM/7379

6865

7590

11/26/2002

Bacon & Thomas
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Alexandria, VA 22314

EXAMINER

LE, DANG D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 11/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,306

Applicant(s)

HORNG ET AL.

Examiner

Dang D Le

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo et al. in view of Clark.

Regarding claim 1, Sudo et al. show a direct current brushless motor, comprising:

- A base (7), having a receiving chamber whose one end is formed with a shaft hole (top, Figure 1);

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- A film printed circuit (Figure 2), having at least two coil sets (20a, 20b) and a connecting end (Figure 9) for connection with a power supply, the film printed circuit being enclosed and wound around a periphery of the base, and each of the coil sets of the film printed circuit being oppositely distributed on the periphery of the base in an equally angular manner with the receiving chamber serving as a center (Figure 1);
- A rotor (3), having a rotation shaft (4) and a permanent magnet ring, the rotation shaft pivoted on the shaft hole of the base, the permanent magnet ring and each of the coil sets (20a, 20b) around the periphery of the base directly producing mutually repulsive forces, so that the rotor is driven to rotate successively.

Sudo et al. do not show a set of Hall sensing drive member.

Clark shows the use Hall sensing drive member for the purpose of monitoring the rotation of the motor.

Since Sudo et al. and Clark are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use a set of Hall sensing drive member, as taught by Clark for the purpose discussed above.

Regarding claim 5, it is noted that Sudo et al. also show the film printed circuit being provided with a fixing magnetic member that is made of magnetically conductive material.

Regarding claim 6, it is noted that Sudo et al. also show one end of the receiving chamber of the base being combined with a cover plate (7).

Regarding claim 7, it is noted that Sudo et al. also show the cover plate having a shaft hole for pivoting the rotation shaft of the rotor.

Regarding claim 8, it is noted that Clark also shows the Hall sensing drive member including a Hall sensor and a drive member (Figures 5-6).

Regarding claim 9, it is noted that Clark also shows the Hall sensor, drive member may be integrated to make an integrated circuit.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo et al. in view of Clark as applied to claim 1 above and further in view of Sickle et al.

Regarding claim 2, the direct current brushless motor of Sudo et al. modified by Clark includes all of the limitations of the claimed invention except for the base being formed with multiple receiving holes for receiving each of the coil sets of the film printed circuit.

Sickle et al. show the base (12) being formed with multiple receiving holes for receiving each of the magnet poles for the purpose of reducing corrosion.

Since Sudo et al., Clark and Sickle et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the base with multiple receiving holes for receiving

each of the coil sets of the film printed circuit as taught by Sickle et al. for the purpose discussed above.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo et al. in view of Clark as applied to claim 1 above and further in view of Fujiwara et al.

Regarding claim 3, the direct current brushless motor of Sudo et al. modified by Clark includes all of the limitations of the claimed invention except for the base being formed with multiple recesses for receiving the film printed circuit.

Fujiwara et al. show the base (30) being formed with multiple recesses (50) for receiving the magnet poles for the purpose of avoiding bonding agent.

Since Sudo et al., Clark and Fujiwara et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the base with multiple recesses for receiving the film printed circuit as taught by Fujiwara et al. for the purpose discussed above.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo et al. in view of Clark as applied to claim 1 above and further in view of Deavers et al.

Regarding claim 4, the direct current brushless motor of Sudo et al. modified by Clark includes all of the limitations of the claimed invention except for the rotation shaft and the permanent magnet ring of the rotor being connected by blades.

Deavers et al. show the rotation shaft and the permanent magnet ring of the rotor being connected by blades (Figure 2) for the purpose of making a fan.

Since Sudo et al., Clark and Deavers et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to connect the rotation shaft and the permanent magnet ring of the rotor by blades as taught by Deavers et al. for the purpose discussed above.

Information on How to Contact USPTO

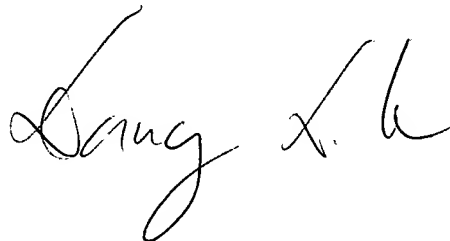
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL
November 23, 2002

PC

A handwritten signature in cursive script, appearing to read "Dang D Le".